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TO: DIVISION FILE

FROM: Kerry Keller - Region 1 *K*

SUBJECT: DOKE DRUM CLEANUP - PHASE I
1418210002 - Ogle County
Davis Junction/Doke Drum Site
Superfund/Technical Reports (4)

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On January 30, 1986, Phase I of the Doke Drum Site Cleanup began. (Phase I consisted of staging, inventorying, sampling and analyses of the drums. Phase II will consist of the actual disposal of the drums and wastes.) The contractor for Phase I was Mid-America Environmental Services, who proposed to do the job in four working days using a crew of seven men, (one Supervisor, one Foreman, one heavy equipment operator and four workers.), in Level C safety gear for all the work onsite except sampling which was to be done in Level B. The Supervisor on this job was Mr. Perre Krizanek. The work plan was to stage all the drums known, then check through the tires with a bulldozer for any additional drums, stage any additional drums found, and sample all the drums found which contain material. The samples were to be sent to Gulf Coast Labs for analysis.

The following is a daily breakdown of the activities on the site during Phase I of the cleanup:

Monday - 1/20/86

Mid-America, Tim Greetis and the author met at the intersection of Routes 72 and 251 between 8:00-8:10 a.m. After everyone had arrived, we traveled to the Doke home. Tim and the author checked to see if anyone was home while Mid-America unloaded a Caterpillar 977 bulldozer and drove it to the drum site. Nobody was found to be home so we drove to the drum site. We arrived at the site at 8:30 a.m. Mid-America unloaded a bobcat which began clearing tires from an area which was to be the drum staging area (see site map). The decontamination (decon) area was designated and the air compressor was placed in position. Perre and the foreman then left the site at 10:00 a.m. to go buy materials to build tables for the decon line, (they did not bring the materials with them). The tires were removed from the drum staging area by 11:15 a.m. The Visqueen was laid for the staging area, and the stakes for the caution tape were driven in. The caution tape was completed by 11:40 a.m. Perre and the foreman returned by 11:30 a.m. and began building tables for the decon line. The drums from the main drum pile began being staged and tires began being moved from the Northeast section of the main tire area, to a temporary storage area located just east of the main tire area. Two of the crew acted as spotters for the caterpillar tractor to spot any drums which may be buried within the tires. Jim Janssen arrived onsite at 12:50 p.m. At 2:30 p.m. Jim Janssen, Tim Greetis and the author left the site to eat lunch. We returned at approximately 3:00 p.m. Tim, and the author donned Level C safety gear and inspected the work site and the drums staged so far. Work seemed to be moving smoothly. However, while inspecting the "empty" staged drums, three were discovered to have material in them and one was leaking a brown liquid onto the Visqueen. This was pointed out to Perre who instructed the workers to move the drums to the "full" drum staging area. After completing the onsite inspection Tim and the author decontaminated ourselves and with Jim Janssen we went to the Doke home to meet with Mr. Doke.

Mr. Doke was met at 4:15 p.m. and was taken to the site. It was explained to him the extent of the project and the safety precautions being taken. He was asked if he wanted the tires which were being moved to the temporary storage area to be moved back to the main tire pile when the project was finished or would it be okay if they were left where they were. Mr. Doke said he thought it was best if the tires were put back on the main pile so that they weren't spread out everywhere. The moving of the tires back to the main pile became Change Order #1 as Mid-America's proposal made no provision for moving the tires back. This change was okayed by Jim Janssen. Mr. Doke then returned to his home and Jim Janssen left the site at 4:45 p.m. Work for the day was finished at approximately 4:55 p.m. The total number of drums staged at the end of the first day was 41 total (8 empty, 33 full). The daily work sheets were reviewed and signed. Perre asked if it would be okay if they started work at 7:00 a.m. This was agreed to, and the site was left at 5:10 p.m., immediately behind Mid-America.

Tuesday - 1/21/86

On Tuesday the author arrived onsite at 7:00 a.m. Mid America arrived at 7:05 a.m. and Perre gave the author copies of the previous days worksheets and explained that they would be bringing in a second caterpillar tractor to help move tires as it was taking longer than they had originally thought to move the tires. They also added a second heavy equipment operator which brought their crew up to eight men. The second caterpillar was expected between 9:00-10:00 a.m. The workers dressed and began staging drums from the main drum pile and the caterpillar tractor began moving tires from along the northwest side of the inner ridge. At 8:10 a.m. Tim Greetis, Jim Janssen and Steve Colantino arrived onsite. Jim Janssen and Steve Colantino left around 9:00 a.m. to visit other sites in the area. At 10:40 a.m. the second caterpillar tractor had not arrived yet, so Perre and the foreman left the site to see if they could find out what was causing the delay. The first caterpillar tractor had begun to excavate the northwest side of the inner ridge and had excavated 6-7 drums by 11:15 a.m. At 11:15 a.m. Jim Janssen, Steve Colantino and Bob Wengrow arrived onsite. Perre and the foreman returned at 11:25 a.m. Perre, Jim Janssen, Tim Greetis and the author then donned Level C protective gear and walked into the pit excavated along the northwest side of the inner ridge. The bulldozer was having difficulty excavating the drums buried along the northwest side of the inner ridge, and as a result was damaging them. The drums excavated from the ridge so far, had been empty or had solids (trash or scrap) in them. The concern was that if a drum containing liquids was encountered, the bulldozer would not be able to excavate it without damaging the drum. Perre expressed the need to bring in a backhoe to excavate the ridge. This was okayed by Jim Janssen. The excavation of the drums with a backhoe became Change Order #2, because the original proposal had not addressed the area of drum excavation. The workers then took a lunch break, and Jim Janssen, Steve Colantino and Bob Wengrow left the site. The second caterpillar tractor, a D6 wide track, arrived at 12:45 p.m. and began work at 1:00 p.m. The drum staging from the main pile restarted and a high solvent odor was detected downwind as 2-3 drums had leaked during staging. The solvent odor was also high in the pit along the ridge as some of the leaking liquids were draining into the pit area. At 4:15 p.m., Perre explained that they would be bringing in a 300 lb. fire extinguisher because he was concerned about having adequate fire protection in light of the high solvent odors being encountered in the pit along the inner ridge.

At 4:45 p.m. work was completed for the day. The daily work sheets were signed and returned. At the end of Tuesday there were 103 full 55 gallon drums staged, 24 empty 55 gallon drums staged, 1 empty 30 gallon drum, and 2 empty 5 gallon pails staged. By the end of the day it became evident that the main drum pile was actually a trench that had drums piled in it, and then had been filled to appear as level ground. Mid-American, Tim Greetis and the author left the site at 5:10 p.m.

Wednesday 1/22/86

On Wednesday Mid-America, Tim Greetis and the author arrived onsite at 7:00 a.m. to find that 48 overpack drums and the 300 lb. fire extinguisher had been delivered. According to Perre, the delivery occurred between 9:30-10:00 p.m. the night before. Copies of the previous days worksheets were given to the author by Perre. On 1/21/86 it was discovered that the main drum pile was actually a trench, and there had been problems with spillage causing high solvent odors in the pit. It was decided to berm the trench below the main drum pile to prevent further spillage from flowing into the pit area. The berm was installed by 9:30 a.m. The drum staging and tire moving went smoothly all morning. By 11:00 a.m. the tire moving was completed. The caterpillar tractors began moving tires back from the temporary tire storage area back to the main pile at 11:20 a.m. At 11:35 a.m., Tim and the author left the site to make phone calls. The crew took their lunch break from 11:45 a.m. - 12:45 p.m. At 12:45 p.m. Tim and the author returned to the site, as work was restarting for the afternoon. Tim and the author donned Level C protection gear and inspected the drums staged so far for markings. Any drum with any markings were labeled and photographed, (see attachment A for drum marking information). Twenty 55 gallons drums and one 30 gallon drum were found to have markings. These drums were labeled (A,B,C...U) and photographed. The drums which were identified as buried drums but had no markings were labeled as A-1, A-2,...A-7. The drum labeling was completed by 2:15 p.m. At 2:00 the tires from the temporary storage area had been all moved back to the main tire area, and sampling of the staged drums was started. The samplers were using air lines with 5 minute escape bottles (level B protection). Perre informed Tim and the author that the work sheets for the first 2 days were in error due to incorrect rates used, and that revised worksheets will be done. At 3:00 p.m. the first Caterpillar tractor (977) left the site and was parked on the east end of the old railroad right of way. At 3:20 p.m. the second Caterpillar tractor (D6) left the site and was driven next to the barn to be picked up the following morning. At 3:45 p.m. Mr. Earnest E. Doke arrived onsite. It was explained to him what was going on, and he went back to his house at 4:20 p.m. At 4:30 p.m. drum staging and sampling was finished for the day. Mid-America left the site at 4:55 p.m. and Tim Greetis and the author left the site at 5:00 p.m.

Thursday - 1/23/86

On Thursday the author and Mid-America arrived onsite at 7:05 a.m. Mid-America's crew was back to seven men. They sent the second heavy equipment operator home. The backhoe (John Deere 690 B) was delivered at 7:10 a.m. and the second caterpillar tractor (D6) was taken away on the same trailer that delivered the backhoe. Tim Greetis arrived onsite at 7:10 a.m. At 8:00 a.m. the author informed Perre of the drums labeled (A-U, and A-1...A-7) by the Agency the previous day, and asked him to supply the author with a list of drums which have an Agency number and the corresponding Mid-America number. Also to supply the Agency with a total number of drums staged, drums full, drums empty, number of overpacks used and the number of samples taken. He said he would have the information by the end of the job.

The workers dressed and began staging and sampling drums by 7:45 a.m. At 9:10 a.m. while the backhoe was moving into position it experienced an electrical problem and broke down. The operator tried to fix it and couldn't. The operator left at 9:30 a.m. to call a repairman for advise. He returned at 10:15 a.m. and tried to fix the backhoe but was unable to repair it. At 11:30 a.m. the operator left the site to call for a repairman. At 12:37 p.m. Tim Greetis left the site to return home to Springfield. At 12:45 p.m. the backhoe operator returned with a John Deere repairman. At 2:20 p.m. the backhoe had been repaired and the repairman left the site. The backhoe moved into position at 2:45 p.m. and began excavating the inner ridge. Between 3:20 - 4:25 p.m. five drums were excavated from the inner ridge. All were empty and only one was not smashed. At 3:25 p.m. two Mid-America workers (George Rudzinski and Rick Vestrate) who had finished a job in the area, arrived onsite to help with the sampling. Also they brought an HNU meter. This brought the crew up to nine men. At 5:10 p.m. the "corrected" work sheets from 1/20, 1/21 and 1/22 were signed. At 5:15 p.m. work was completed for the day. Mid-America and the author left the site at 5:35 p.m.

Friday - 1/24/86

On Friday the author arrived onsite at 7:00 a.m. Mid-America arrived onsite at 7:05 a.m. The workers dressed, and began staging and sampling drums at 7:50 a.m. The excavation plan was changed to excavate the main drum pile/trench first and then excavate the inner ridge. The reason for the change was that none of the drums in the ridge had any material in them, and there were still 15-20 drums in the main drum pile/trench which could not be staged with the bobcat. Also, since all the drums which had material in them were from the main drum pile/trench, they could be staged and sampled while the inner ridge excavation was completed. The excavation of the main drum pile/trench started at 7:55 a.m.

At 9:25 a.m. a drum containing a granular material was excavated from the main drum pile/trench. It had an Ashland Chemical label on it and the author labeled it #V. The main drum pile/trench excavation was completed by 10:25 a.m. and at 10:30 a.m. excavation of the inner ridge was started. At 11:10 a.m. two empty five gallon pails were excavated from the inner ridge. One pail was labeled Dow Esteron 99 and the other had no markings at all. At 12:00 noon Perre presented the daily work sheets for 1/23 and 1/24 a.m. As of 1/24/86 at noon, 75 samples had been taken. The remainder of the samples became Change Order #3. At 12:15 p.m. the signed sheets were returned to Perre. Between 2:15 p.m. and 3:32 p.m. 11 drums were excavated from the inner ridge. At 2:42 p.m. and 3:02 p.m. the only two drums excavated from the ridge with any material in them were excavated. The 2:42 p.m. drum contained a black liquid and the 3:02 p.m. drum contained a blue liquid. Both of these drums had holes poked in them apparently when they were dumped. These drums were labeled B-1 and B-2 and were overpacked. At 3:40 p.m. the excavation of the ridge was complete. Perre instructed the operator to leave the backhoe onsite so it could be decontaminated. At 3:50 p.m. it began to snow. Drums B-1 and B-2 were sampled between 4:00 p.m. - 4:20 p.m. At 4:00 p.m. work finished for the day and the first caterpillar tractor was taken to the barn and parked. At 4:35 p.m. drums B-1 and B-2 were sealed with evidence tape. At 4:50 p.m. Mid-America and the author leave the site.

Saturday - 1/25/86

On Saturday the author arrived onsite at 7:00 a.m. Mid-America arrived between 7:05 a.m. and 7:15 a.m. Sampling restarted by 7:40 a.m. The daily work sheets for 1/24/85 were reviewed and signed. At 9:40 a.m. the evidence tape seals were broken on drums B-1 and B-2 so HNU readings could be taken. At 9:50 a.m. the foreman gave the author a summary sheet of corresponding numbers, number of drums full, empty and overpacks, (see attachment B). At 1:00 p.m. the foreman donned level C protective gear to help the workers complete sampling, and the sealing of the overpacks. Sampling was completed at 1:10 p.m. Demobilization began at 1:15 p.m. while sealing of the overpack drums was finished. During demobilization the foreman moved three of Mid-America's vehicles while still wearing his tyvek. (The vehicles were on the clean side of the decontamination line.) This was discovered by the author after the vehicles were moved and the foreman was returning to the decontamination line from the clean side while wearing his tyvek. All the overpacks drums were sealed by 2:00 p.m. Per Perre the staking around the staged drums could not be done due to the ground being frozen, and so no caution tape or signs were posted at the end of demobilization. The daily work sheets were signed at 2:35 p.m., and Mid-America and the author left the site at 2:40 p.m. The author stopped at Mr. Doke's home and informed him that Phase I was completed. The author left Mr. Doke's home at 2:55 p.m.

SUMMARY

The total number of 55 gallon drums staged was 184. This included 44 drums which were empty, 100 drums which were full and intact, and 40 drums which were full but required overpacking. There also were 4 empty five gallon pails and one empty 30 gallon drum. There were 140 samples taken which was 65 samples above the 75 samples contracted for.

The cleanup had to be modified during the project to bring in a second bulldozer and a backhoe. Also due to delays and the higher than expected number of drums found, the project took two days longer than anticipated. Work generally went smoothly although occasionally there was inconsistencies regarding safety practices and communications. For example, during demobilization neither the backhoe or the bobcat were decontaminated before being taken offsite. Perhaps it should be spelled out if and when equipment is to be decontaminated. Also heavy equipment delivery/pickup fees could be broken down so that mileage rates are reflected. This could help the Agency reduce costs when a trailer is used twice as on 1/23/86 when the trailer used to deliver the backhoe was used to pickup one of the bulldozers. This reduced the number of trips made by the delivery trailer by one, however the contractor did not allow a price break as the mileage and trailer usage is not broken down on the rate sheet.

KK/bp

cc: Jim Janssen
Tim Greetis
Steve Strauss
Rockford File